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The change process can be described as a cycle consisting of 5 phases: invention, diffusion, decision, adoption-rejection, and consequences. Poor communication between inventor and user is probably the weakest point in the educational system. Most innovative decisions are made by the school system rather than individual teachers. Characteristics of small school situations, such as limited financial and faculty resources, physical isolation, and apathetic community attitudes toward education, contribute to a slow rate of acceptance of innovation. Sharing services and pooling financial resources may permit small schools to initiate more innovative programs. Educational research and development should focus on producing innovations designed especially for the conditions of small and rural schools. (JH)

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CHANGE IN SMALL SCHOOLS

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TABLE OF CONTENTS

	Page
PURPOSES	iv
INTRODUCTION	1
The Dilemma of the Small School in an Era of Change	1
Why Are We Enamored with Educational Change?	1
PART I: EDUCATIONAL CHANGE: A SPECIFIC TYPE OF SOCIAL CHANGE	3
Invention in Education	3
Diffusion in Education	5
Decision in Education	6
Adoption in Education	8
Consequences in Education	8
Summary of Part I	9
PART II: SMALL SCHOOLS AND THEIR SPECIAL CHANGE PROBLEMS	10
Distinguishing Characteristics of Small Schools	10
Change in the Small School Setting	14
PART III: SUGGESTIONS FOR IMPROVING THE RATE OF INNOVATION AND CHANGE IN SMALL AND RURAL SCHOOLS	17
Suggestions Related to Staff	17
Suggestions Related to Change Agent Activities	19
Suggestions Related to Resources	22
Suggestions Related to Community Support	23
Suggestions Related to Innovation Selection	24
Suggestions Related to Planning and Managing Change	25
REFERENCES	26

PURPOSES

There are three purposes of this paper.

1. To discuss the nature of educational change.
2. To explore the change problems confronting small and rural schools in the United States.
3. To offer suggestions for incorporating change and innovation in small and rural schools.

INTRCDUCTION

> Educators throughout the nation are caught up with the notion of change. It is not a small or superficial interest that we feel, but a complete commitment. We are saturated, preoccupied, and consumed with change. It is our first real love affair since Progressive Education.[1]

The Dilemma of the Small School in an Era of Change

While many of the other schools in the nation court with favor Dame Change, the small and rural schools of our country shy away, looking only from a distance at the innovations that accompany Change as she sweeps through our educational systems.

The small and rural schools, isolated from the mainstream of her path, rarely venture forward, perhaps because they feel Change might be too costly, perhaps because they feel uncertain when faced with the new teaching techniques she often brings with her, perhaps because they feel her innovations to be inappropriate for their way of life, perhaps because they really do not know much about her and therefore distrust her, perhaps because they have seen what she offers and are just not interested. The dilemma of the small and rural schools is how to win the hand of Change, how to bring Change to their communities, so that rural schools can also benefit from innovation and change in education.

Why Are We Enamored With Educational Change?

The times in which we live force us to recognize and deal with change. Our total environment is composed of many and varied social systems, integrated in a weblike configuration. The acceptance of change and innovation by any one of these social systems means the other social institutions must respond. "Any society is a sum of its many parts. If a society is one in which change is taking place at an accelerated rate, then it of necessity follows that its component parts must also be changing at a rapid pace."[2] Our educational systems of necessity are enamored with change. The change occurring in the other sectors of our larger environment requires an educational system that can accommodate to these changes, as well as prepare individuals to live in a society that is changing and will continue to change at an ever-increasing rate.

Carl Rogers states:

> Teaching and the imparting of knowledge make sense in an unchanging environment. This is why it has been an unquestioned function for centuries. But if there is one truth about modern man, it is that he lives in an environment which is continually changing.
>
> We are . . . faced with an entirely new situation in education where the goal of education, if we are to survive, is the facilitation of change and learning. The only man who is educated is the man who has learned how to adapt and change; the man who has realized that no knowledge is secure, that only the process of seeking knowledge gives a basis for security . . . .
>
> I see the facilitation of learning as the aim of education, the way in which we might develop the learning of man, the way in which we can learn to live as individuals in process. I see the facilities of learning as the function in which many hold constructive, tentative, changing, process answers to some of the deepest perplexities which beset man today.

Change must be at the center of our education systems. Schools in rural areas are constantly confronted with change, change in the larger society, change in the rural economy, changes in population, etc. If the children being educated in these systems will be able to operate in the larger environment, then schools in the rural areas of the nation must be responsive to changes in the larger environment. They must, therefore, court Dame Change and her numerous hand maidens, educational innovations.

PART I

EDUCATIONAL CHANGE: A SPECIFIC TYPE OF SOCIAL CHANGE

Social change is the process by which alteration occurs in the structure and function of a social system.[3] We can think of the change process as a cycle occurring in five phases: (1) invention; (2) diffusion; (3) decision; (4) adoption-rejection; and (5) consequences (Figure 1). Invention is the process by which new ideas are created or developed. Diffusion is the process by which these innovations[4] are communicated through a social system. The decision-making phase of social change is the process individuals or systems use in arriving at the choice to either adopt or reject a given innovation. The adoption-rejection phase includes the processes by which the individuals or systems begin to utilize (or not utilize) the innovations. It includes the integration (or non-integration) of innovation into the ongoing environment, as well as the confirming functions[5] that usually happen following the decision to either utilize or reject an innovation. The final phase of the social change cycle (it is often the impetus for yet further change) includes the consequences resulting from the adoption or rejection of the innovation. They are the results or effects of the innovation, once it is operating in the ongoing system.

Let us take education as the social system with which we are concerned, and examine these processes in the educational context.

Invention in Education

1. Cawelti[6] points out the lack of educational inventors who are directly involved in the educational process. Classroom innovations depend, to a large extent, on ivory-tower "researchers." Rarely are innovations inspired by the felt needs of teachers, principals, or superintendents. The concerns of researchers are often not in line with those of the teacher, and as a result, the ideas they develop go unheeded and unused. This may be particularly true in the small school situation. How many educational innovations are the direct results of the needs of the small school?[7]

2. When teachers do create, they seldom subject their ideas to careful experimental scrutiny to determine the effects of a given idea on the learning experience of pupils.

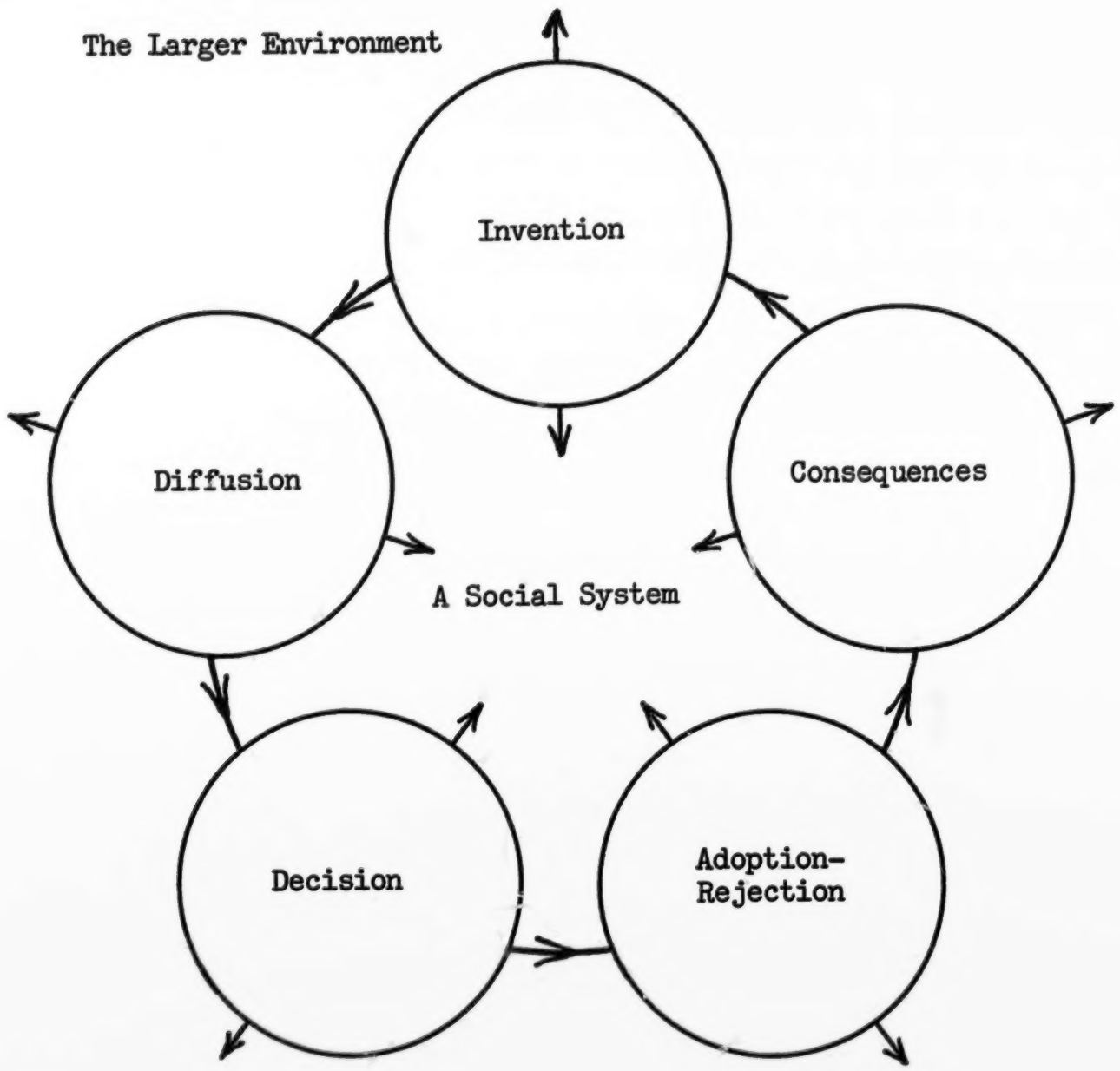

Figure 1. The Cycle of Social Change

3. The abstract nature of the educational process further complicates educational inventing. In areas such as agriculture, medicine, and clothing fashion, the creation and/or development process is aided by the relative ease with which new ideas can be field-tested and evaluated. Many educational innovations are of a non-material variety, resulting from research in the social sciences. The results of such inquiry have for the most part not been communicated to potential users, perhaps because ideas are more difficult to diffuse than material products.

Diffusion in Education

Since educational inventors are often somewhat removed from those (administrators, teachers, and pupils) in the system who will eventually adopt the innovation, communication between the inventor and the potential adopter is vital. New ideas can have no effect if they are not made known to potential users. The link between inventor and user is probably one of the weakest interfaces in our contemporary educational system. In fact, it is so weak that many educational change experts[8] advocate the establishment of a formalized linking role to facilitate better communication between sources of educational innovation and potential users. There are several reasons for this poor communication:

1. The new ideas of researchers and developers are often lost in the "scientific gobbledygook" of research reports that appear in academic journals. Innovations are often presented in such a manner that they are indecipherable by potential users.

2. There is a lack of communication between teachers about innovations that they may be trying in their classrooms. Often when new ideas are developed by a teacher, they remain hidden behind the doors of that individual's classroom.

3. Communication between schools about innovations tends to be limited. Teachers rarely have the opportunity to visit other schools while they are in session to see innovations in actual operation. This is particularly difficult in rural areas, where schools are often quite far apart.

4. The primary channel for information about innovations is print. Research journals and educational magazines are published in great

numbers. How many teachers have the time or inclination to sift through these in search of useful ideas? While educational conferences, in-service programs, and workshops are on the increase, few are aimed at helping teachers and school administrators incorporate educational innovations into their ongoing systems.

5. Somewhat related is the tendency for teachers to be told about new educational practices and programs. Seldom, if ever, is the classroom teacher involved in learning about innovations. The teacher is told via lectures, newsletters, conferences, conversations, etc. We know that this is one of the poorest methods of persuading individuals to try new ideas, yet it continues to be the most frequent method employed in education. Techniques which actively involve the teacher are much stronger motivators for stimulating an experimental approach to education.

Decision in Education

Innovation decisions can be thought of as resting with either (1) the individual or (2) the system. Individual decisions are those optional choices the individual makes concerning the adoption or rejection of given innovations. The individual is free to do as he wishes when faced with the necessity to adopt or reject a new idea. The decision of a housewife to buy a new brand of soap is an example of individual decision-making. In system decisions, the social system exerts primary influence over the determination of innovation adoption or rejection. Most innovation decisions in our schools are system decisions. The school system, rather than the individual teacher, is the decision-maker. There are three types of system decisions, each with varying degrees of system control over the eventual individual user of the innovation.[9]

1. The authority decision. Those higher in the power structure require the functioning individuals in the organization to adopt or reject the innovation on the basis of the authority's decision. We can all recall examples of a system exerting power over our freedom to choose among given alternatives. Most teachers can probably remember instances in which, upon returning to their school after a summer vacation,

they were ordered to accept certain decisions made by the school administration. Such mandates for change have probably been the cause of many gripe sessions in the teachers' lounge. Students are most likely to remember examples of the school system exerting pressure for rejection of such innovations as wearing mini-skirts and long hair. These are authority decisions.

2. The contingent decision. The individual may adopt or reject a new idea but only after the system has made an enabling adoption decision. For example, a teacher cannot use a video-tape machine to monitor his classroom behavior unless the school system has made the decision to buy such equipment. While there is less control exerted over the individual in some ways (he does not have to adopt if he does not want to), the fact that the system must first decide to adopt the innovation means that the system exerts primary influence in the innovation-decision process.

3. The collective decision. The individuals comprising a social system participate (either directly or through representation) in the verdict on the given innovation. Once the decision is made, all members of the social system must abide with the decision of the system.

Authority decisions and contingent decisions[10] are probably in most evidence throughout our educational systems. Each limits individual innovativeness in some ways.

Most educational systems are "coercive"[11] bureaucracies in which authority decisions form the basis of innovation and change considerations. As a result, there is often considerable dissatisfaction within the ranks of teachers[12] who feel that as the educated individuals most closely associated with the actual learning situation, they should be able to exert more influence over the policies and changes that are made. The resentment that grows from having to comply without having had a voice in the decision is often carried over to the innovation itself. And so the resulting quality of the innovations' use is lessened.

The impact of contingent decisions usually affects teachers' use of innovative equipment and materials, for the school must purchase the equipment in order for the teachers to use it. Many young teachers

graduating from colleges and universities meet with disappointment when they attempt to use such innovations as language laboratories, videotape equipment, programmed instruction, etc., as a great many schools have not made favorable decisions (for one reason or another) concerning such innovations.

Many school systems are pockets of traditionalism, with norms operating against change and innovations.[13] When the innovation decisions lie primarily with the tradition-oriented power structure, individual innovativeness (as well as system innovativeness) can be effectively stifled. Since many educational innovations require system adoption before individual use, the traditional system can maintain the status quo without much difficulty. For example, it would be quite difficult for a teacher in a school to use flexible scheduling if the school system had not made the necessary system decision to adopt.

Adoption in Education

School systems, administrators, and teachers can all function as the actual utilizers of educational innovations. Because the decision function and the adoption function are often carried out by different individuals in a school system, care must be taken to secure acceptance on the part of the individuals expected to use the innovations. If innovations are to be "properly" used, support and practice must be provided for the adopters. This is often a neglected step. Teachers are left to figure out how they can incorporate changes into their daily teaching experience without adequate training and preparation to become fully effective adopters.

Consequences in Education

The fact that consequences or effects of educational innovations are often difficult to isolate, control, and evaluate is another distinguishing characteristic of educational change.

1. In contrast to the field of agriculture, where we can readily see the effects of a given fertilizer within one growing season, innovations in education often produce far less visible evidence of their value. It may take years for us to determine the effects of independent study because: the mental growth of a child is not as readily

apparent as the growth of a cornstalk; the effects of independent study are hard to separate from teacher effects, peer effects, curriculum effects, other study methods, etc.; the evaluation time factor is often much longer than one growing season; and our measuring devices are often inadequate.

2. Educational innovations seldom have a high degree of relative advantage over previous practice. New ideas in education often represent only small beneficial increments of advantage over ideas that they replace, adding to difficulties in evaluation.

3. Because educational innovations are often inadequately tested in the field, inaccurate expectations for their effects are created.

Summary of Part I

Educational change is characterized by: (1) distance between inventors and potential users; (2) many barriers to efficient diffusion of new ideas and practices; (3) system (rather than individual) decisions; (4) adopters who are very often different from those making the innovation decisions; and (5) illusive and only vaguely apparent results. As a result, the process of diffusion and change operates at a pace slower than desirable in education. The pace of educational change in rural and small schools has been, and continues to be, somewhat slower than the national average.[14] Let us now briefly examine some of the reasons for this difference.

PART II

SMALL SCHOOLS AND THEIR SPECIAL CHANGE PROBLEMS

To determine why small and rural schools lag behind other types of schools in innovation and change, we need to examine the peculiar characteristics that contribute to their slower rate of innovation, as well as the special problems confronting small school systems when they attempt to innovate.

Distinguishing Characteristics of Small Schools

Small enrollments are an inherent feature of schools in sparsely populated areas. Further, rural schools are usually isolated from cultural events, as well as from other educational opportunities. Usually considerable travel is required to contact events other than what the local community offers. The economy is usually dependent on the production of raw materials, such as food, lumber, coal, etc.[1] Generalizations about the surrounding environment are difficult, for small schools are extremely heterogeneous. Classified as small and rural schools are the schools serving rural Negroes in Alabama, schools in Iowa serving the farm population, schools on the Indian reservations in New Mexico, the Appalachian schools in Kentucky, schools in Montana, as well as schools in Michigan serving Mexican American migratory workers' children. The vast cultural, geographical, and racial diversity make it difficult to talk in terms of common denominators (such as common problems and cures) for small schools.

Different as they may be, most small schools have:

1. Limited financial resources. Often small size means that economies of scale do not operate to the advantage of rural schools. The limited tax base existent in most rural communities means a lack of basic funds, so it may cost more per pupil to educate in smaller schools, and funds are also usually more limited.

While we have seen some evidence of fine projects, such as Catskill Area Small Schools Project (CASSP), Rocky Mountain Small Schools Project (RMSSP), Western States Small Schools Project (WSSSP), Southern Atlantic Small Schools Project (SASSP), Upper Midwest Small Schools Project (UMSSP), sponsored with funds from foundations as well as the Federal government,

the majority of small schools unfortunately remains unaffected by the success of such projects. Sturges and Krahmer (1967) assert that since Title III funds have become available, there has been a rapid increase in small school projects, to the point where almost every one of the fifty states has at least one operating program.[2] Unfortunately, these programs only reach some and in many cases, a very small number of the schools in the state.

Change and innovation require money, if not for the innovation itself, then for the time that must go into planning and training and integrating new ideas and practices. The fact that smaller schools are usually poorer schools is reflected in their slower rate of innovation adoption.

Limited financial resources also mean that one aspect of the problem will be attacked, while others go unheeded. During the last decade available funds have often gone into the improvement of physical facilities, the consolidation of school districts, the restructuring of school government, etc., to the point where "A majority of rural youth attend schools which may well be housed in relatively new buildings, but where the instruction offered has changed very little and where the specialized and supporting programs and services are completely absent."[3] We tend to put all our money in one pocket when we only have a little, so physical facilities have improved greatly in many rural areas, but instructional materials and methods, special programs, etc. often remain in the Dark Ages.

2. Limited faculty and administration. We speak of "limited" in several respects:

(a) A faculty is usually limited in number. This means that teachers have a limited group of peers with whom they can share ideas. If one were innovative, he most likely would be the only innovative teacher in his school, and therefore, would not find support for his actions. Teachers can learn from one another (even though as we pointed out earlier, for various reasons this does not happen as frequently as it might). The more different ideas, the more different opinions, the more different techniques operating in the same system, the more impetus to try different approaches to teaching. Limited numbers of

faculty in small schools mean that a limited number of ideas are exchanged. The problem is even more exaggerated for school administrators, for there are probably even fewer administrators operating in one district, therefore fewer sounding boards for new ideas.

(b) A faculty is usually limited in innovative tendencies. Teachers in rural and small schools tend to be somewhat older, out of college longer, and have fewer years of formal education (than their counterparts in urban and suburban schools). The natural resources of the small school teacher are more limited. Being older and out of school longer means the small school teacher (unless he is continuing his education) is less likely to be aware of new educational ideas. The tendency for older people to become more set in their ways and satisfied with the status quo is also apparent in school teachers.

(c) A faculty is usually limited to one school environment. We might say that small school teachers tend to be "limited cosmopolites." They have usually been raised in a community similar to the one in which they are teaching.[4] The teachers are often limited to the local community by geographical isolation. Their contact with the larger world and with other teachers in other school systems is severely limited. The informal, unplanned diffusion of new educational ideas that occurs among school personnel in urban areas is thus much more difficult for rural school staff. The limited horizons of the small school teacher mean there is less opportunity for him to be exposed to innovations, which come mostly from the external environment.

The limited and often inadequate staffing of small schools is due to several factors: poor and/or isolated local living conditions; a lack of community interest in securing qualified teachers;[5] difficulties inherent in small school teaching; a lack of competitive pay scales, etc. So "limited" faculty means limited innovation.

3. Physical isolation. We have just noted the limiting effects of physical isolation on faculty and administration. Because school systems are not within easily accessible distance of one another, it becomes difficult for one school system to keep abreast of what similar school systems are doing. Geographical distance means much stronger

efforts are needed to ensure between-school communication. We have already noted the general tendency for a lack of communication between small schools.

4. Students. Many small and rural schools service minority people who place a low value on education (Negroes, Indians, migrant workers, farmers). A disproportionally larger number of rural youth fail to complete high school than the national average.[6] They have this in common with the students of many inner city (ghetto) schools. Education has not been made a meaningful part of their lives, the motivation to finish school is much lower since many do not see relevance to their future lives. So the need to better motivate students is one characteristic of most small and rural schools.

The failure of small schools to reach many pupils may be due to the differences between teachers and students. If the teachers are from different cultural and socioeconomic backgrounds, they may not be able to empathize with the feelings and motivating forces of their students.[7] Communication may be difficult. Learning may not be taking place; therefore the students drop out.

The goals of students in small schools are likely to be very heterogeneous, in that some may wish to continue living in the rural community, while many will migrate to urban and suburban areas. Some may see high school as the end of the educational road, while others wish to go to college. So the teacher in the small school is usually confronted with more heterogeneity in goals among a smaller number of students. In large schools students can often be grouped together according to interests, future goals, etc.; in small schools they are likely to be in the same classes. The teachers in small and rural schools are often not equal to the task of preparing students for successful operation in several different walks of life.

In summary, small schools are characterized by limited financial resources, limited faculty, physical isolation, and often heterogeneous student populations. We note, in passing, that many small schools are located in communities that reflect apathetic attitudes toward the whole educational process. Apathy in the local community means the entire burden for innovation and adequate education lies with teachers and administrators.

Change in the Small School Setting

How do these characteristics relate to the slower rate of innovation in small schools? We noted some of the relationships as we discussed the characteristics; let us emphasize those we feel most important in accounting for the fact that smaller/rural schools tend to be less innovative than their larger/urban and /suburban counterparts.

1. There is little effort directed to developing innovations designed specifically for small schools. In our general discussion of educational change, we pointed out the distance between educational inventors and researchers and potential users. The distance is even greater where small schools and their respective faculties are the potential adopters. Teachers have difficulty communicating their felt needs to individuals who may be able to help them; the rural teacher may have the most difficulty in securing appropriate help from those who are inventing and developing educational innovations. The innovations related to individualized instruction are, of course, among those most highly relevant for small schools. Rarely were they tested in these environments;[8] small schools were left to do their own searching, adapting, and testing.

The research that has been conducted in small schools to date tends to be largely of a descriptive nature. When innovation occurs in these schools, little is done to test and evaluate the results of the innovation's adoption. The success or failure of an innovation is often determined by the "gut feelings" of the teachers using them. While this may be a satisfactory method of evaluating a given innovation, a more controlled experimental approach might lead to results that would prove more generalizable in the long run and, therefore, be of more value to similar schools.

2. Diffusion of innovations among small and rural schools is left largely to chance. Until recently there has been little formal effort made to disseminate what is known about innovations in small and rural schools. Teachers and administrators in rural schools start out fresh each time they seek to innovate, without knowledge of what has been and is being done by similar schools. The National Federation for the

Improvement of Education (NFIRE) may work to facilitate more efficient diffusion of what is known.

There is a lack of interest on the part of commercial, professional, and governmental change agents in small schools. Usually change agents tend to concentrate their efforts on larger systems, where more teachers and pupils can be reached. The goals of most educational change agents (like curriculum specialists, audio-visual equipment salesmen, state department of education personnel, etc.) are related to the promotion of as much change as possible with the least effort. This often leaves school systems like the smaller and more rural ones without the benefit of change agents' activities.

The problems of diffusion are aggravated by the isolation of the school systems. More than a normal effort is needed to diffuse innovations throughout such systems, while a less than normal effort is being made.

There are <u>some</u> innovative small schools; do these schools make any efforts to diffuse what they know about educating students in this type of environment?

3. <u>Decision-making is often in the hands of an apathetic and/or traditional school board</u>. When the school board is apathetic, it is usually neither a barrier to nor support for change. When the community norms and values are in direct opposition to change and innovation, it may be difficult for even the most forward-looking school superintendent or principal to innovate. Rural communities usually tend to be somewhat conservative. This means that school administrators may have to carefully plan to overcome resistance and to gain support for their campaigns of change and innovation.

4. <u>Adoption is often left to the individual teacher who may not be adequately trained to use the innovations.</u> With money in scarce supply, it is easy to forget that it is often not enough to supply innovations. Teachers often have to be persuaded and taught how to effectively use new ideas. Because there are often only a few teachers in a system, it is difficult to secure inexpensive training for them.

5. The effects of innovation in small schools have not been thoroughly validated. Little effort is made to evaluate the consequences of innovations. Perhaps because the personnel that service rural schools are not adequately trained, perhaps because teachers and project leaders have not been convinced of the importance of submitting their innovational efforts to experimental scrutiny, and for other reasons, evaluation procedures are the weakest part of most innovative projects in small and rural schools. Effects of innovations are important if we are to diffuse them to other teachers, other schools. It is helpful for prospective adopters to have a realistic idea of the effects they can expect upon adopting an innovation. Careful documentation and testing of innovations, therefore, become an important (but presently neglected) aspect of the change process in small and rural schools.

PART III

SUGGESTIONS FOR IMPROVING THE RATE OF INNOVATION AND CHANGE IN SMALL AND RURAL SCHOOLS

The following are intended as food for thought and possible action.

Suggestions Related to Staff

1. Seek innovative faculty members. One of the quickest ways to ensure more rapid innovation is through the creation of an atmosphere conducive to experimentation and change. A faculty composed of individuals with positive attitudes towards change helps create this atmosphere.

In general, research on the diffusion of innovations among schools shows that the more innovative units[1] (as compared to the less innovative units) are typified by:

(a) Larger size;
(b) Greater wealth;
(c) Urban location;
(d) Hiring and reward procedures that emphasize staff innovativeness, youth, and expertise;
(e) Community support for change;
(f) Open climates (which welcome new ideas from the external environment); and
(g) Free-flowing communication within the school.

Innovative teachers[2] (as contrasted with laggards) are characterized by:

(a) Cosmopoliteness (traveling to out-of-town educational meetings, etc.);
(b) Youth;
(c) More formal education; and
(d) Greater exposure to mass media communication messages, especially educational journals.

With these in mind, individuals who are in the position of hiring teachers might query prospective teachers on their attitudes toward change in general and toward specific innovations. Recruiting messages can stress the importance of an experimental attitude. Such messages are more likely to appeal to change-oriented individuals. If such messages stress the importance of innovation in the school system, individuals who lean in this direction are more apt to apply than those who are intimidated by the prospect of having to cope with change.

2. Work with present staff to produce enthusiasm for innovative efforts. There are several ways of approaching the problem of creating an innovative faculty with existing faculty members.

(a) UMSSP found in their survey that most teachers felt a need to share ideas with teachers in other school systems.[3] Providing teachers with opportunities to visit other schools permits seeing innovative efforts in operation. Cross-school visitations can provide teachers with a fertile arena in which they can explore, discuss, and exchange experiences with innovational efforts. Exposure to a school where innovation permeates the atmosphere can be contagious. Cushman and Sturges (1965) note the high morale often apparent in schools experimenting with new ideas:

> Of special interest was the morale factor apparent among staffs of project schools; their identification with a progressive, forward-moving school system was heard repeatedly from teachers who almost glowed as they showed the changes they were exploring, from administrators when they talked about lower percentage of turn-over each year.[4]

Use this excitement to breed further excitement. The responsibility lies with the schools who are having success with innovative programs as much as with those thinking about undertaking changes. If successfully innovative schools issue invitations to other schools, they may be providing the impetus for that school to get started.

(b) Conferences and/or workshops are another way of bringing teachers from several different schools together. If the conferences and workshops concentrate on practical application, rather than on lectures discussing advantages of a given new method, more innovation is likely to occur. Teachers are often uncertain about the actual steps to take in making certain innovations work in the classroom. When the focus of conferences and workshops is on the practical aspects of adoption, more innovation is likely to occur.

(c) Reward teachers who exhibit a desire to improve their teaching through innovation. While it is often impossible to use financial incentives for innovations, other compensation can be made to encourage teachers in this direction. For example, planning time could be allotted during the school day.

(d) Involve teachers in innovation decisions. Many teachers accept a lack of voice in innovation decisions as the norm:

> The occupational role of the public school teacher is so organized that norms governing changes in the expertise of this occupation are, for the most part, the responsibility of the school administration or 'other experts.' In other words, the public school teacher does not perceive of herself as someone who should and can make decisions about educational innovations.[5]

Unfortunately, teachers have learned to expect that they will not be involved in educational innovation decisions, that instead they will merely carry out the decisions of someone else. To overcome this situation, school faculty[6] can be encouraged to participate in discussions leading to the definition of needs and problems within the school and in the investigation of innovation to meet their felt needs. Often the school superintendent or principal is a member of innovation-investigating teams, and teachers are left at home. Teachers sent to other school systems for observation often return with new enthusiasm, which they may impart to other faculty members.

Involvement in the actual decision is also important. Many research studies point to involvement in a decision as the key to successful innovation adoption. Having been involved in the decision to adopt the innovation, individuals tend to be more committed to seeing it work.

These suggestions have all been directed at steps which school administrators can take to promote an innovative spirit among faculty members. What happens if school administrators themselves are barriers in innovative efforts? Procedures similar to those outlined for teachers can be utilized by state departments or some other regional agency, such as Operation PEP[7] in California. In other words, it may be wise to plan involvement activities at all levels of our educational systems.

Suggestions Related to Change Agent Activities

The diffusion of educational innovations is a rather slow process when it is left to follow its natural course, and it is even slower in systems that remain geographically and psychologically isolated from other educational systems. The change agent role is one that has been neglected in rural education, and it is precisely in this area that professional diffusers are most needed. Systematic efforts directed (1) at creating awareness of innovations, (2) at persuading individuals

to try new ideas and practices, (3) at assisting individuals in the trial and adoption of innovations, (4) at evaluating the effects of innovation adoptions, and (5) at disseminating the findings from innovative projects, are required if small schools are to keep pace with change. There are several ways that small schools can be linked to sources of innovation, and with each other, to facilitate a more rapid diffusion of relevant innovations.

1. Regional Meetings. Regular meetings (conferences and/or workshops) for teachers, school principals, and school superintendents, provide an opportunity to hear consultants, as well as to exchange ideas with others in similar positions. This is one way of creating awareness of new ideas. Cushman and Sturges (1965) suggested a concentrated effort on teacher workshops, after investigating several "successful" small school projects in which teacher workshops played an important role.[8]

With a coordinating agency such as NFIRE, there is a possibility of developing meetings for individuals with similar concerns and interests. This may be a more profitable basis for meetings than the more common regional basis. Whether organized through the efforts of the state, concerned school systems, or coordinating agencies (such as NFIRE or regional education labs), regular gatherings of small school personnel can bring about exposure to new ideas.

Regular meetings are also a possible means for commercial change agents (such as book and materials salesmen) to reach a large number of teachers and administrators which they would not otherwise make an effort to reach. This is one way of encouraging commercial change agents to respond to the needs of small and rural schools.

2. Roving Diffusion Laboratories. Another diffusion alternative is the roving laboratory. The type of transportation and the exact number of personnel involved would, of course, vary with the region being served. This method involves carrying the innovation message to school teachers in their own school setting. An example of a roving lab is a small bus which carries examples of new materials, as well as one or two individuals who have been trained in the use of several

relevant innovations or who are aware of current innovations utilized throughout the country. Change agents operating out of the roving lab could remain long enough in one area to work with teachers on an individual basis, to help them analyze their problems, to select appropriate innovations, and to test the innovation to see if it meets the needs of the situation. The roving lab could also help gather new educational ideas from the school visited, and diffuse these ideas to the other schools they service. For example, were they to learn of a teacher in one school using a questioning technique (of teaching) they might suggest this idea at the next school they visit. In other words, they could not only carry innovation information from state or regional sources, but could also serve as a connecting function among the local schools being serviced.

The roving lab is one way of making temporarily available to local schools such equipment as video-tape recorders. By equipping the vehicle with new types of technical equipment, small school systems would have the opportunity to try out expensive equipment innovations before buying it. The roving lab thus could be a demonstration-trial service. Teachers and administrators could see if they would derive enough benefit from the innovations to warrant investment. The change agents traveling in the bus would, of course, have several uses for the innovation (such as the use of a video-tape unit as a feedback device for improving teaching). Teachers and administrators could also be encouraged to think of different ways to use the equipment. The roving lab is one way to combine many of the five aspects of the innovation-decision process (create awareness, persuade, etc.) outlined earlier in this section.

3. Helping Teachers. A less elaborate alternative to the roving lab is the "helping teacher" who services schools in a small geographical area on a weekly basis by consulting with teachers about innovations. The helping teacher might concentrate on innovations that deal with the improvement of teaching techniques and materials.

Through careful selection, particularly innovative teachers could be placed in the roles of helping teachers. They would provide support, as well as expertise, to the teacher who is beginning to experiment with

new teaching techniques. Innovation often takes careful planning and development, for which full-time classroom teachers often do not have time; so the helping teacher could also relieve the time pressures that accompany innovation, by either helping with the planning or relieving the teacher from classroom activities for short periods of time to permit the teacher to do the necessary planning. Stockman (1962) found the helping teacher to be an effective method to encourage teaching innovations in small school settings in Michigan.[9]

In whatever form, a change agent role is filled for small schools by the helping teacher. There is so much going on in educational change that it is almost impossible for someone who has a full-time teaching or administrative responsibility to keep up with current developments. Since innovation is the full-time job of a change agent, teachers have someone to turn to when looking for a new idea. The change agent has sifted through the total stock of innovations to find those most relevant for the small and rural school.

Suggestions Related to Resources

Innovation and change take time and money. How can the small school garner the necessary resources for innovation?

1. Pooling Resources. While individual small schools might find it quite impossible to float the costs of innovation on their own, pooling resources by several small schools could provide a larger sum of monies for innovation, an investment from which all might profit. In other words, school districts need not be boundaries to cooperation in trying and adopting innovations.

Shared services is one method of pooling financial resources. An individual, such as a remedial reading teacher, is jointly hired by more than one school system so that she provides services to all the schools. Where one small school may not be able to afford a remedial reading teacher on its own staff,[10] several may need the services of such an individual on a part-time basis. So it becomes feasible to share the services of special teachers such as art, music, vocational, etc. Shared services is a practice most common in rural New York,[11] but is found in various forms in other states. In fact, area vocational schools are one type of shared services.

Pooling financial resources also makes possible the purchase of technical equipment whose cost might prohibit purchase by single schools, if the equipment can be used jointly.

2. Priming the Pump. While the financial resources of given school districts may be limited, thereby dampening the innovation process, funds from federal agencies and foundations are available for innovative programs. There is some evidence to indicate that once the pump of innovation has been primed, the flow of change often continues. "It appears that the influence of financial assistance from outside the district has given impetus to change and the improvements in the instructional programs have continued after the financial assistance has been terminated."[12]

Title I and III of the Elementary and Secondary Education Act (ESEA), as well as the Ford Foundation, the Kettering Foundation, and the Title IV regional education laboratories are all sources of additional funds for the small school. Bailey and Mosher indicate that the administration of Title III funds has "brought frustration to the understaffed, poorer, smaller school districts in the nation which lacked the human and financial resources to compete with larger wealthier districts in preparing Title III applications . . . ."[13] Perhaps in addition to encouraging small schools to apply for grant and foundation monies, some effort could be made to help these schools make the appropriate plans necessary to obtain such awards. One of the services NFIRE might provide (in addition to the coordinating of research efforts to prevent duplication) is aid in proposal writing and project planning. State or regional change agents (like state departments of education) might also function in this facilitating capacity.

Suggestions Related to Community Support

Community apathy has been noted by several authors as a possible reason for lack of innovation and financial support in small school districts. Since many innovation decisions need community support, the community needs to be involved. It must be informed about the happenings in the school, and the school system needs to be aware of community opinion.

Forums. Group forums may be one way of involving citizens of small communities. Radio, television, films, or printed programs generated from a regional source might concentrate on describing various innovation efforts by schools within that region. If individuals in the community can be brought together on a regular basis to listen to or view a program about educational innovation, they are more likely to become involved in supporting such innovative ideas in their own schools. There is, we feel, incipient interest in educational innovations in small communities; the forum approach offers one means to capitalize on it.

There are several ways that a school administrator can organize such forums. He can use members of his teaching staff as group leaders, bringing the teachers in closer contact with the community. He can have the forums meet at schools so that following the forums, a larger community meeting can take place. He can structure the forums so that they meet in local homes, and the media channel can be printed materials or short speeches or films.

In all of these alternative approaches, the media forums capture the advantages of both mass media and interpersonal channels of communication. They enable school leaders to inform citizens about educational changes, and at the same time, encourage widespread participation in school decision-making.

Small and rural schools are in a unique position to gain community support for innovative programs. The small size and tight-knit nature of these schools could facilitate open discussion of school problems and ways to meet them. But this unique advantage of rural schools is not realized unless a concerted effort is made to channel community support.

Suggestions Related to Innovation Selection

1. There are many educational innovations that require little financial investment; these are often particularly suited to the small school. Examples of such techniques are student independent study, team teaching, and individualized instruction. If small schools lack financial resources for change, one guide should be to concentrate on low-cost innovations.

2. Educational research and development need to focus on producing innovations that are particularly designed for the conditions of small and rural schools. This has not been done in the past. Thus, today most educational innovations, to some degree, are inappropriate for the small school.

Suggestions Related to Planning and Managing Change

To improve the rate of innovation in small and rural schools, change must be viewed as something to plan and manage. As a conclusion to this paper, we advocate the development and use of change strategies designed specifically for the small school. These strategies would be guidelines or designs for how to introduce innovations to client audiences. These change strategies should stem from a firm basis in diffusion research. Such inquiry is almost entirely lacking today. A priority step for future research is to focus upon the nature of change in small schools.

REFERENCES

PART I

1. Erven Brundage, "Our Love Affair with Change," Theory Into Practice, 5:91, April, 1966.

2. Jean A. Keeley, "Criteria for Innovations," Educational Leadership, 25:304, January, 1968.

3. Everett M. Rogers with Lynne Svenning, Modernization Among Peasants: The Impact of Communication (New York: Holt, Rinehart and Winston, 1969).

4. In this paper, we use the concept of innovation to mean any idea, object, or practice perceived as new by a given set of individuals. Everett M. Rogers with F. Floyd Shoemaker, Communication of Innovations: A Cross-Cultural Approach (New York: Free Press of Glencoe, 1969), p. 11.

5. The inclusion of a confirming function alludes to the tendency of human beings to seek reinforcement for the point of view they hold, or a position they support. When they have made a decision to adopt or ignore an innovation, they continue to look for support for the decision. For example, after one purchases a new car, he is apt to continue to look at advertising for that car, to support the new purchase, and to ignore ads for other cars.

6. Gordon Cawelti, "Innovation Practices in High Schools: Who Does What and Why and How," Nation's Schools, 79:56-88, April, 1967.

7. While we might be able to trace individualized instruction to its roots in the one-room school, innovations that are responsive to the needs of the small school are limited in number.

8. Examples are Egon Guba, "Development, Diffusion, and Education (paper presented at the Conference on Knowledge Production and Utilization in Educational Administration: Role Emergency and Reorganization," University of Oregon and University Council for Administration, Portland, Oregon, October 19, 1967); Charles Jung and Ron Lippitt, "The Study of Change as a Concept in Research Utilization," Theory into Practice, 5:25-29, February, 1966; and Ron Havelock's knowledge linker's handbook to help train individuals serving this function, to be published by the Center for Research on the Utilization of Scientific Knowledge (CRUSK) at the University of Michigan.

9. These are taken from Rogers with Shoemaker, Reference 4, p. 34.

10. A contingent decision does not mean that the individuals had no say in the innovation-adoption decision, for it is very possible for the decision to be a collective decision; the point is that most often they are authority-contingent decisions.

11. "A society or organization is coercive to the extent that the individual has no alternative to a given path of action." John W. Gardner, Self-Renewal (New York: Harper and Row, 1964).

12. Gottlieb and Brookover present some evidence to contradict this point of view. In their study of elementary school teachers, they found that teachers perceived themselves as primarily responsible for carrying out decisions that the administrators made, that teachers did not particularly see themselves as capable of making decisions about educational innovations, and that teachers felt their role was mainly to accept decisions made by their superiors. David Gottlieb and Wilbur B. Brookover, Social Factors in the Adoption of New Teaching-Learning Techniques in the Elementary School (Lansing: Michigan State University, College of Education, 1966), p. 14-21. (Mimeographed.)

13. This may be particularly true in rural communities. If the school board is composed of community members who have little exposure to educational practices in other communities, they may not see the value of innovation in education and may exert influence for maintenance of the status quo.

14. In a national survey of accredited high schools, one researcher found "small town and rural schools were least innovative." Cawelti, Reference 6.

PART II

1. A.W. Sturges and Edward Krahmer, "What is New in Rural Education--NFIRE," College of Education Record, 52:129-46, May-June, 1967.

2. Reference 1.

3. Robert Isenberg, "Education in Rural America: Are We Doing Our Job" (speech presented at National Outlook Conference on Youth, Washington, D.C., April 16, 1967), p. 11.

4. This, of course, is an advantage, in one sense. Because the teachers are more like their students (more homophilous) in background, they will be more likely to communicate effectively with these students than someone who is less like them (heterophilous).

5. Isenberg, Reference 3, p. 15.

6. Isenberg, Reference 3, p. 9.

7. Earlier, we pointed out that teachers often came from similar rural communities. While this is true, many who attain the education necessary to become teachers are from a different (middle) class than the majority of their students.

8. This means that educators from the small school environment are less likely to find the results credible. If they see their schools and students as a unique group, they are likely to doubt the validity of innovations tested in a suburban setting, for example.

PART III

1. Among various researches summarized here are: Richard O. Carlson, The Adoption of Educational Innovations (Eugene: University of Oregon, Center for the Advanced Study of Educational Administration, 1965); Paul P. Preising, "The Relationship of Staff Tenure and Administrative Succession to Structural Innovation" (paper presented at the American Educational Research Association, Los Angeles, February 7, 1969); Samuel G. Christie and Jay D. Scribner, "A Social System Analysis of Innovations in Sixteen School Districts" (paper presented at American Educational Research Association, Los Angeles, February 7, 1969); Homer M. Johnson and R. Laverne Marcum, "Organizational Climate and the Adoption of Educational Innovations" (paper presented at the American Educational Research Association, Los Angeles, February 7, 1969); and Donald H. Ross, Administration for Adaptability (New York: Columbia University Teachers College, Metropolitan School Study Council, 1958).

2. Reference 1.

3. Richard Kunkel, "The UMSSP--An Innovative Venture," College of Education Record (University of North Dakota), 52:57-61, Dec., 1966.

4. M.L. Cushman and A.W. Sturges, Innovations for Instructional Improvement (Grand Forks: University of North Dakota, College of Education, 1965), p. 9-12.

5. Gottlieb and Brookover, Reference 12, p. 123-4.

6. It might be wise for the school administrator to include representative members of the community whenever he can in innovation decisions. Financial and moral support are more likely to be forthcoming when the community feels involved.

7. Operation PEP is a Title III project designed to prepare educational planners. School administrators are encouraged to plan and direct change activities in their school systems.

8. Cushman and Sturges, Reference 4.

9. Verne A. Stockman, Evaluation of Helping Teachers' Contribution of Inservice Education of Teachers in Rural Schools of Michigan (Ph.D. thesis, Michigan State University, Lansing, 1952), p. 125-137.

10. "Afford" is used in the sense that there may not be enough pupils in that school to warrant full-time employment of such an individual.

11. Cushman and Sturges, Reference 4.

12. Cushman and Sturges, Reference 4.

13. Stephen K. Bailey and Edith K. Mosher, ESEA: The Office of Education Administers a Law (Syracuse, New York: Syracuse University Press, 1968), p. 137.